SOLAR RELAY

INVERTER CONTROL
with GE

GEH Hybrid Inverter

CATCH Power
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IMPORTANT..PLEASE READ

The CATCH Solar Relay works by emulating the energy meter the inverter would normally use.

This means two things are really important.

## 1. You need to read the inverter manual:
Make sure you understand how to setup the inverter for export control. When you read the manual it will talk about an energy meter or CT…Follow the instructions exactly as they are in the manual. If there are any changes required we will let you know further down in this document.

## 2. Read the CATCH Solar Relay installation manual:
The manual outlines how to setup the CATCH Solar Relay to control loads. It also outlines circuit breaker requirements, how to use the CATCH Configurator App, etc.

Once you have followed step one and two you are ready to proceed….

Wiring Instructions
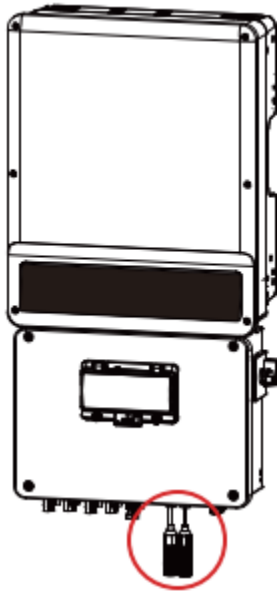
CATCH Solar Relay and the inverter communicate using RS485. Connecting the two pieces of hardware requires a 2 core RS485 cable. When the RS485 cable run is greater than 20m it is recommended to use a 2 core cable designed specifically for RS485 communication, it will typically have a 120 Ohm characteristic impedance. However, for short cable runs any 2 core cable will typically do the job, as long as it is rated for the voltages it will be exposed to. The pink CBUS data cable is ideal for short cable runs.
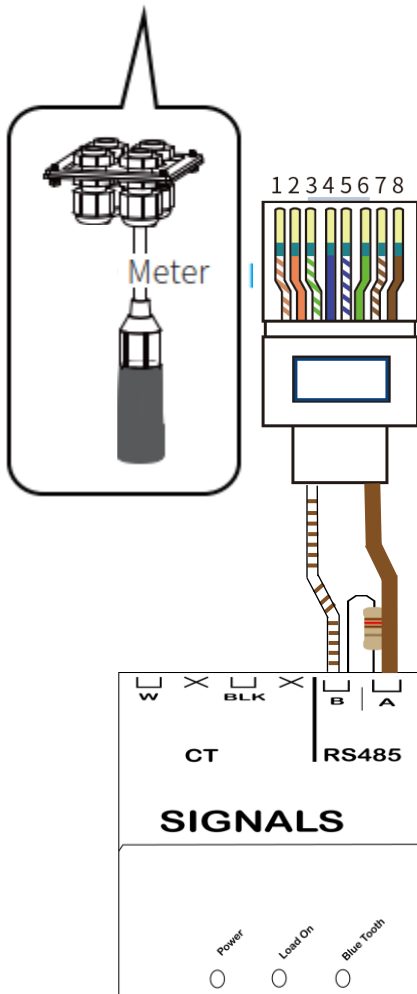
NO.	Color	BMS Function	Smart Meter Function
1	Orange&White	485_A2	N/A
2	Orange	N/A	N/A
3	Green&White	485_B2	485_B1
4	Blue	CAN_H	N/A
5	Blue&White	CAN_L	N/A
6	Green	N/A	485_A1
7	Brown&White	N/A	485_B1
8	Brown	N/A	485_A1

Pin 8 or Pin 6 => Catch Solar Relay RS485 A
Pin 7 or Pin 3 => Catch Solar Relay RS485 B

SOLAR RELAY Setup

The screen below is from the CATCH Power Configuration App. The App can be downloaded from Google Play Store or the Apple iStore.

IMPORTANT		**DO A FIRMWARE UPGRADE BEFORE YOU BEGIN** We are adding new inverters, and new control features all the time. Your relay firmware is most likely out of date already. Follow the onscreen instructions and perform a firmware update before you continue on

SOLAR RELAY Setup

Navigate to the Configuration screen and expand the Modbus Configuration section. Fill it out using the details below.

Save your changes.

Modbus Configuration

Emulated Meter
GE − GE Hybrid (GEH)

Cluster Export Limit
0
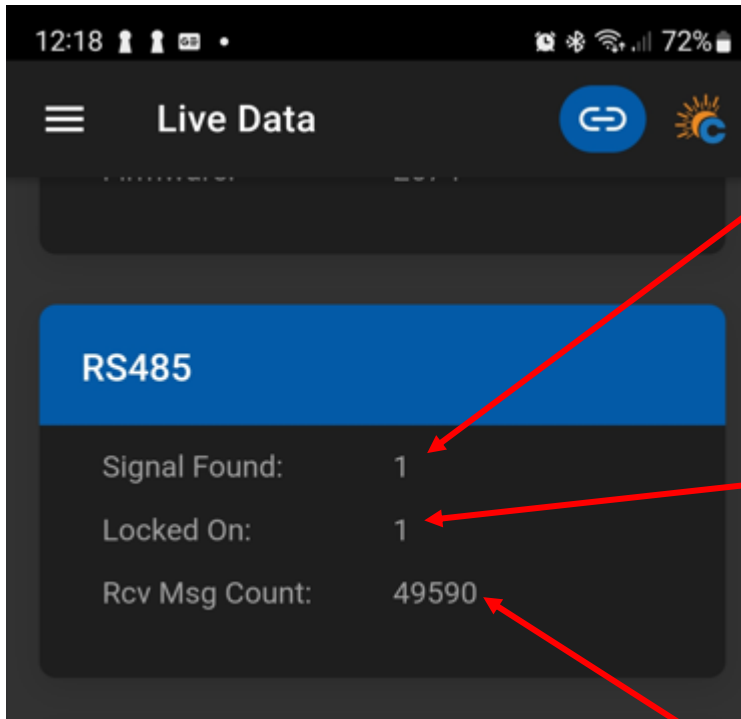
Modbus Device ID
3

Modbus Baud Rate
9600

Modbus Stopbits
1

Modbus Parity
NONE

Checking the status of the RS485 interface

Within the CATCH Power app if you navigate to the bottom of the Live Data screen you will see something similar to the screen below.

The RS485 Status Can be used to confirm correct operation

Indicates the inverter is transmitting data on the RS485 cable.

If this is zero it means the inverter is not communicating or there is a break in the cable.

This indicates the inverter and the CATCH Relay are talking the same language.

If this is zero it is likely you have not chosen the correct meter when configuring the relay or the +ve and –ve wires are crossed over.

This number continually counts the number of successful messages. This number will continue to rise if communications the link is good.

1

Inverter Setup

Following the inverter installation and commissioning process as you normally would. Including any export limiting requirements that may be required.

DYNAMIC / FLEXIBLE EXPORT CONTROL

THE FOLLOWING ONLY NEEDS
TO BE FOLLOWED IF YOU ARE ENABLING
DYNAMIC / FLEXIBLE EXPORTS

DYNAMIC / FLEXIBLE EXPORT CONTROL

RTU Control
DYNAMIC / FLEXIBLE Export Control

> ## NO NATIVE MONITORING
> If you choose to use RTU Control for this inverter, the inverter monitoring platform will not work

> ## NO BATTERIES
> RTU Control cannot be used on Hybrid inverters that have a battery connected.

1. Log into the inverter using the SolarGo commissioning app
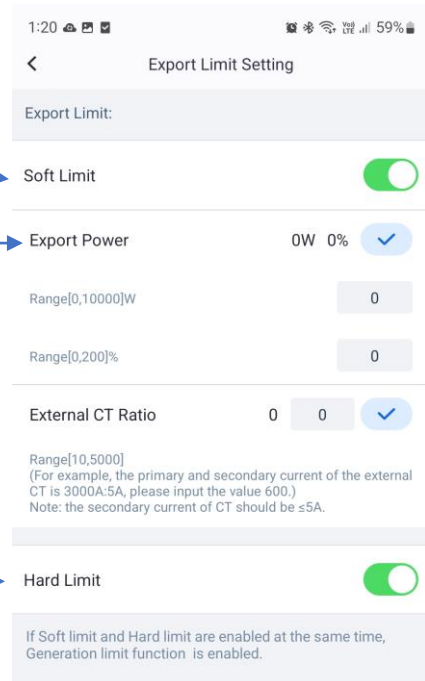
SolarGo
GoodWe Technologies Co., Ltd.

2. Navigate to
Advanced Settings ->Export/Power Limit Settings

3. Setup the inverter as Shown

Soft limit ON

Export limit to ZERO

Hard Limit ON

1:20   59%

‹   Export Limit Setting

Export Limit:

Soft Limit			
Export Power		0W 0%	✓
Range[0,10000]W			0
Range[0,200]%			0
External CT Ratio	0	0	✓

Range[10,5000]
(For example, the primary and secondary current of the external CT is 3000A:5A, please input the value 600.)
Note: the secondary current of CT should be ≤5A.

Hard Limit

If Soft limit and Hard limit are enabled at the same time, Generation limit function is enabled.

SUNSPEC Configuration

GE Does not support SUNSPEC over modbusTCP

DYNAMIC / FLEXIBLE EXPORT CONTROL

Follow the Configuration steps in the Electricians Guide to register the site for the MONOCLE, and for Dynamic / Flexible Exports